

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: FONG, Mo-Han; IRAQI, Ali  
Serial No.: 10/673,480  
Filed: September 30, 2003  
Title: MULTI-CARRIER LOAD BALANCING SCHEME FOR VOICE AND  
DATA  
Group: 2617  
Examiner: HOLLIDAY, Jaime  
Attorney Ref.: PAT 2151-2 US

June 24, 2010

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia  
22314-1450  
U.S.A.  
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**PETITION TO THE DIRECTOR UNDER 37 CFR 1.182**

Applicants hereby petition under 37 CFR 1.182 for review by the Director of the improper reopening and reconsideration of the instant application by the examiner, subsequent to a final determination by the Board of Patent Appeals and Interferences (BPAI) reversing all the examiner's rejections. The Fee under 37 CFR 1.17(f) is submitted.

**1. BACKGROUND**

- 1.1. This petition is not in response to any formal written correspondence received from the USPTO in regard to reopening or reconsideration of prosecution of the instant application.
- 1.2. On June 22, 2010, the undersigned reviewed the Electronic File Wrapper (EFW), and noted that prosecution of the instant application has been reopened subsequent to the final determination of the BPAI. As detailed below, a further search had been completed by the examiner, resulting in Reasons for Allowance that were based on a newly cited reference.
- 1.3. On June 22, 2010, the undersigned contacted Supervisory Patent examiner (SPE) Charles Appiah by telephone to discuss the circumstances leading to the reopening of prosecution. SPE Appiah advised that he did not consider the search outlined below

to constitute reopening of prosecution, and that the search was an interference search. SPE Appiah further advised that because the case proceeded to allowance and was found allowable over the newly cited art, the search had, in fact, "strengthened the patent". However, SPE Appiah advised that he would seek further guidance from within the USPTO.

- 1.4. On June 23, 2010, SPE Appiah left a voicemail message with the undersigned advising that it was his position that the search for more relevant references and the subsequent reasons for allowance based on newly uncovered art were proper. SPE Appiah recommended that if we disagreed, we were free to petition or submit comments on the reasons for allowance.

## **2. FACTS**

- 2.1. Claims 1 - 11 and 15 - 20 of the present application were rejected in a Final Action dated September 21, 2006. The rejection was appealed to the BPAI, and the BPAI Decision was issued on November 27, 2009, *reversing the examiner on all grounds*. A copy of the BPAI Decision is attached as Exhibit "A".
- 2.2. The case was returned to the examiner. On March 10, 2010, the examiner indicated in her search notes, attached hereto as Exhibit "B", that a new prior art search had been completed. The search strategy and results, attached hereto as Exhibit "C", are timestamped "2010/03/02".
- 2.3. The examiner's search notes indicate that the case was "Allowed after BPAI reversal", and that she "reviewed prior art as suggested by Charles Appiah and Raphael Guiterrez".
- 2.4. The search of March 10, 2010 was not an interference search. An interference search was completed on March 19, 2010. A copy of the interference search is attached hereto as Exhibit "D".
- 2.5. On March 24, 2010, a Notice of Allowance and Notice of Allowability were mailed, copies of which are attached as Exhibit "E".

2.6. Accompanying the Notice of Allowance was a Notice of References Cited, containing a newly cited reference ("Watanabe"). The Notice of References Cited is attached hereto as Exhibit "F".

2.7. As noted in the examiner's statement of reasons for allowance, found at para. 3 of the Notice of Allowability, claims 1, 4, 10 and 12 were stated to be allowable over a previously cited reference (Zdunek) and Watanabe.

### 3. RULES AND PROCEDURE

3.1. Pursuant to 37 CFR 1.198, "When a decision by the Board of Patent Appeals and Interferences on appeal has become final for judicial review, prosecution of the proceeding before the primary examiner will not be reopened or reconsidered by the primary examiner except under the provisions of § 1.114 or § 41.50 of this title without the written authority of the Director, and then only for the consideration of matters not already adjudicated, sufficient cause being shown.

3.2. Pursuant to MPEP 1214.04, when the examiner is reversed on appeal, the "examiner should never regard such a reversal as a challenge to make a new search to uncover other and better references."

### 4. DISCUSSION

4.1. Pursuant to 37 CFR 1.198, the examiner can only reopen prosecution subsequent to a final determination on appeal on the written authority of the Director. The Decision of the BPAI in this matter was final.

4.2. In support of the assertion that the examiner has improperly reopened prosecution, Petitioner relies on the decision in *In re Voss*, 557 F.2d 812, 194 USPQ (BNA) 267. A copy of the decision is attached at Exhibit "G".

4.3. In *In re Voss*, the examiner had reopened prosecution in accordance with 37 CFR 1.198, and the appellant appealed against the propriety of the decision to reopen prosecution. The court stated (at p. 816):

The examiner's decision to *reopen prosecution* constituted neither the rejection of a claim nor a decision adverse to the ultimate

patentability of a claim. Accordingly, we hold that the board properly found that it had no jurisdiction to review the decision to reopen prosecution. (italics and underlining added for emphasis)

Therefore, regardless of the results of the search, or the ultimate decision on patentability, Petitioner submits that *In re Voss* makes it eminently clear that prosecution is reopened by the search alone.

- 4.4. Petitioner submits that in the instant application, after a final determination by the BPAI, the examiner reopened prosecution and reconsidered the claims by undertaking the prior art search of March 10, 2010. The citation of the Watanabe reference, and the examiner's reasons for allowance further demonstrate that the claims on which the examiner was reversed by the BPAI were reconsidered. Thus, the examiner reopened prosecution, without seeking the written authority of the Director under 37 CFR 1.198.
- 4.5. Pursuant to MPEP 1214.04, the examiner should never consider a reversal on appeal to invite a further search of the prior art. Petitioner submits that reopening and reconsideration include any further prior art search, regardless of whether the claims are ultimately found to be allowable over the newly uncovered art.
- 4.6. Written authority of the Director to reopen prosecution under 37 CFR 1.198 was neither sought nor provided. Accordingly, the search and reconsideration of the claims are contrary to the rules and procedure before the USPTO, and the examiner exceeded her authority by reopening prosecution.
- 4.7. Petitioner has or may suffer irreparable damage or prejudice due to the existence of the examiner's improper search and reasons for allowance in the file wrapper.
- 4.8. Providing comments on the reasons for allowance, pursuant to MPEP 1302.14 V., is inappropriate in this case, as the examiner's final rejection was reversed on appeal, and should not be required to comment on art not before the BPAI.

## **5. RELIEF SOUGHT**

- 5.1. There is no prescribed remedy for improperly reopening prosecution after a final determination by the BPAI.

5.2. Petitioner requests that this petition be granted.

5.3. Petitioner requests that:

5.3.1. the examiner's prior art search strategy and results subsequent to the BPAI decision be expunged from the file wrapper, or otherwise stricken from the record.

5.3.2. The examiner's search notes subsequent to the BPAI decision be expunged from the file wrapper, or otherwise stricken from the record.

5.3.3. The Notice of References Cited dated March 24, 2010 be expunged from the file wrapper, or otherwise stricken from the record.

5.3.4. Pages 2 - 5 of the Notice of Allowability be expunged from the file wrapper, or otherwise stricken from the record.

5.4. In the alternative, Petitioner requests that:

5.4.1. This petition be entered into the file wrapper as Comments on the Reasons for Allowance.

The Commissioner is hereby authorized to charge any additional fees, and credit any over payments to **Deposit Account No. 14-1315, in the name of Nortel Networks.**

Respectfully submitted,  
**FONG, Mo-Han, et al**

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**EXHIBIT "A"**



# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,480	09/30/2003	Mo-Han Fong	0583P57US01	1538
26123 7590 11/27/2009 BORDEN LADNER GERVAIS LLP Anne Kinsman WORLD EXCHANGE PLAZA 100 QUEEN STREET SUITE 1100 OTTAWA, ON K1P 1J9 CANADA			EXAMINER HOLLIDAY, JAIME MICHELE	
			ART UNIT 2617	PAPER NUMBER
			NOTIFICATION DATE 11/27/2009	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ipinfo@blgcanada.com

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* MO-HAN FONG and ALL IRAQI,

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Appeal 2009-003231  
Application 10/673,480  
Technology Center 2600

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Decided: November 24, 2009

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Before ROBERT E. NAPPI, MARC S. HOFF and  
KARL D. EASTHOM, *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL



This is a decision on appeal under 35 U.S.C. § 134(a) of the final rejection of claims 1-11 and 15-20.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We reverse the Examiner's rejections of these claims.

### INVENTION

The invention is directed to a system and method of controlling voice and data traffic on a single carrier by maintaining no greater than a maximum defined load. *See Spec: 6-7.* Claim 1 is representative of the invention and reproduced below:

1. A method of balancing voice and data traffic in a wireless communications network, said method comprising the steps of:  
    establishing a maximum load value for at least one of a voice or data traffic on a carrier; and maintaining loading on said carrier at a level no greater than said established maximum load value by converting said carrier from voice and data traffic to voice-only traffic upon exceeding said established maximum load value;  
    wherein said established maximum load value is a threshold defined to ensure acceptable quality of communications.

### REFERENCES

Brody	US 4,670,899	Jun. 2, 1987
Zdunek	US 4,870,408	Sep. 26, 1989
Kotzin	US 5,796,722	Aug. 18, 1998

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<sup>1</sup> Claims 12-14 were indicated as containing allowable subject matter in the Non-Final Rejection, mailed August 10, 2005.

Ayyagari	US 6,278,701 B1	Aug. 21, 2001
Salonaho	US 6,594,495 B2	Jul. 15, 2003

#### REJECTIONS AT ISSUE

Claims 1, 3, 4, and 10 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Zdunek. Ans. 3-7.

Claims 2 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Zdunek in view of Brody. Ans. 8-10.

Claims 5, 9, and 15-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Zdunek in view of Kotzin. Ans. 10-14.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Zdunek in view of Ayyagari. Ans. 14-15.

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Zdunek in view of Salonaho. Ans. 15-17.

#### ISSUE

*Rejection of claims 1, 3, 4, and 10 under 35 U.S.C. § 102(b) as being anticipated by Zdunek*

Appellants argue on pages 7-11 of the Appeal Brief that the Examiner's rejection of claim 1 is in error. Appellants argue that Zdunek does not disclose converting a carrier from voice and data traffic to voice-only traffic as required by claim 1. App. Br. 7. Appellants present similar arguments directed to independent claims 4 and 10 and dependent claim 3 on pages 10-11 of the Appeal Brief.

Thus, with respect to independent claims 1, 4, and 10 and dependent claim 3, Appellants' contentions present us with the issue: Have Appellants shown that the Examiner erred in finding that Zdunek teaches converting a carrier from voice and data traffic to voice-only traffic?

*Rejection of claims 2, 5-9, 11, and 15-20 under 35 U.S.C. § 103(a)*

Appellants argue on pages 11-14 of the Appeal Brief that the Examiner's rejection of dependent claims 2, 5-9, 11, and 15-20 is in error. Claims 2, 5-9, 11, and 15-20 are dependent upon claims 1, 4, and 10 and contain similar limitations to claims 1, 4, and 10. Appellant presents the same issues with respect to claims 1, 4, and 10. App. Br. 11-14. Thus, Appellants' arguments with respect to the Examiner's rejection of claims 2, 5-11, and 15-20 present us with the same issue as claims 1, 4, and 10.

FINDINGS OF FACT

*Zdunek*

1. Zdunek discloses a communications system that transceives both data and voice from a number of subscribers, including: voice-only subscribers, data only subscribers, and voice/data subscribers. Col. 1, ll. 7-9 and col. 4, ll. 33-35.
2. A particular number of data channels are assigned as data or voice channels. A central monitor monitors the voice activity while a network controller monitors data activity. Col. 5, ll. 26-29.
3. If data activity has exceeded a threshold, the network controller requests a voice channel be reallocated to a data channel. If voice activity has exceeded a threshold, the central requests a data

channel be reallocated to a voice channel. Col. 5, ll. 34-41 and col. 8, ll. 9-42.

#### PRINCIPLES OF LAW

Office personnel must rely on Appellant's disclosure to properly determine the meaning of the terms used in the claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995) (en banc). "[I]nterpreting what is *meant* by a word *in* a claim 'is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.'" *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 1348 (Fed. Cir. 2002) (internal quotation marks and citations omitted; emphasis in original).

#### ANALYSIS

*Rejection of claims 1, 3, 4, and 10 under 35 U.S.C. § 102(b) as being anticipated by Zdunek*

Appellants' arguments have persuaded us that the Examiner erred in rejecting claim 1. Independent claim 1 recites "converting said carrier from voice and data traffic to voice-only traffic upon exceeding said established maximum load value." Independent claims 4 and 10 recite similar limitations. Appellants first argue that Zdunek does not disclose a carrier containing both voice and data traffic. App. Br. 8. Additionally, Appellants argue that Zdunek does not disclose converting a carrier from voice and data traffic to voice-only traffic. App. Br. 8. We agree.

Zdunek discloses a method wherein if a communications system contains high voice activity a decision is made as to whether a data channel can be changed to a voice channel. FF 3. Additionally, if the

communications system contains high data activity a decision is made as to whether a voice channel can be changed to a data channel. FF 3. In both situations, the voice activity and the data activity are on separate channels. The Examiner has not identified any teaching, nor do we find any teaching in the reference, that discloses that a carrier can contain both voice and data activity at the same time. Therefore, we will not sustain the Examiner's rejection of claims 1, 3, 4, and 10.

*Rejection of claims 2, 5-9, 11, and 15-20 under 35 U.S.C. § 103(a)*

Appellants' arguments have persuaded us of error in the Examiner's rejection of claims 2, 5-9, 11, and 15-20. Claims 2, 15, and 16 ultimately depend upon claim 1; claims 5-9 and 17-18 ultimately depend upon claim 4; and claims 11 and 19-20 ultimately depend upon claim 10. Appellants' arguments that the rejection of these claims is in error for the reasons discussed *supra* with respect to claims 1, 4, and 10 is persuasive for the reasons discussed *supra* with respect to claims 1, 4, and 10. The Examiner has not found that the additional teachings of Brody, Kotzin, Ayyagari, or Salonaho make up for above noted the deficiency noted in the rejection of claims 1, 4, and 10. Therefore, we will not sustain the Examiner's rejection of claims 2, 5-9, 11, and 15-20.

#### CONCLUSIONS OF LAW

Appellants have shown that the Examiner erred in finding Zdunek teaches converting a carrier from voice and data traffic to voice-only traffic.

Appeal 2009-003231  
Application 10/673,480

### SUMMARY

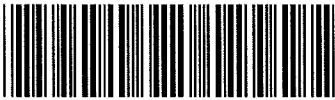
The Examiner's rejection of claims 1-11 and 15-20 is reversed.

### REVERSED

ELD

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ANNE KINSMAN  
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## **EXHIBIT “B”**

<b>Search Notes</b>  	<b>Application/Control No.</b>  10673480	<b>Applicant(s)/Patent Under Reexamination</b>  FONG ET AL.
	<b>Examiner</b>  JAIME M HOLLIDAY	<b>Art Unit</b>  2617

SEARCHED			
Class	Subclass	Date	Examiner
455	453	3/10/10	JMH

SEARCH NOTES		
Search Notes	Date	Examiner
Allowed after BPAI reversal; reviewed prior art as suggested by Charles Appiah and Raphael Guiterrez	3/17/10	JMH

INTERFERENCE SEARCH			
Class	Subclass	Date	Examiner
	UPAD and PGPub search	3/19/09	JMH

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**EXHIBIT "C"**

**EAST Search History****EAST Search History (Prior Art)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("6122292").PN.	US-PGPUB; USPAT	OR	OFF	2010/03/17 16:02
S1	8	("4670899"   "4870408"   "5241685"   "5796722"   "6278701"   "6456850"   "6456850"   "6574474"   "6594495").PN.	US-PGPUB; USPAT	OR	ON	2010/03/02 09:32
S2	94	((MO-HAN) near2 (FONG)).INV.	US-PGPUB; USPAT	OR	ON	2010/03/02 09:33
S3	0	((ALL) near2 (IRAQI)).INV.	US-PGPUB; USPAT	OR	ON	2010/03/02 09:33
S4	9	((ALI) near2 (IRAQI)).INV.	US-PGPUB; USPAT	OR	ON	2010/03/02 09:36
S5	104	S2 or S1 or S4	US-PGPUB; USPAT	OR	ON	2010/03/02 09:38
S6	7	S5 and (Conver\$6 near4 (traffic or channel or carrier))	US-PGPUB; USPAT	OR	ON	2010/03/02 09:39
S7	813	data with voice with (Conver\$6 near4 (traffic or channel or carrier))	US-PGPUB; USPAT	OR	ON	2010/03/02 09:41
S8	6164	(455/450- 453,455).CCLS.	US-PGPUB; USPAT	OR	OFF	2010/03/02 09:45
S9	14	S7 and S8	US-PGPUB; USPAT	OR	ON	2010/03/02 09:45

S10	353226	((("455") or ("340") or ("370")).CLAS.	US-PGPUB; USPAT	OR	OFF	2010/03/02 09:48
S11	557	S7 and S10	US-PGPUB; USPAT	OR	ON	2010/03/02 09:49
S12	24	data with voice with (Conver\$6 near4 (traffic or channel or carrier)) with both	US-PGPUB; USPAT	OR	ON	2010/03/02 09:49
S13	13	S10 and S12	US-PGPUB; USPAT	OR	ON	2010/03/02 09:49
S14	35	data with (speech or voice) with (Conver\$6 near4 (traffic or channel or carrier)) with both	US-PGPUB; USPAT	OR	ON	2010/03/02 10:36
S15	17	S10 and S14	US-PGPUB; USPAT	OR	ON	2010/03/02 10:37
S16	3	"7315736"	US-PGPUB; USPAT	OR	ON	2010/03/02 11:34
S17	3253	data with (speech or voice) with (transmit\$6 or carry\$4) with both	US-PGPUB; USPAT	OR	ON	2010/03/02 11:40
S18	2509	"voice only"	US-PGPUB; USPAT	OR	ON	2010/03/02 11:40
S19	1014	voice-only	US-PGPUB; USPAT	OR	ON	2010/03/02 11:41
S20	2509	S18 or S19	US-PGPUB; USPAT	OR	ON	2010/03/02 11:41
S21	15	S17 same S20	US-PGPUB; USPAT	OR	ON	2010/03/02 11:41
S22	1	S21 and (Conver\$6 near4 (traffic or channel or carrier))	US-PGPUB; USPAT	OR	ON	2010/03/02 11:41

S23	4	S21 and (Conver \$6 with (traffic or channel or carrier))	US-PGPUB; USPAT	OR	ON	2010/03/02 11:42
S24	175	S17 same (Conver \$6 with (traffic or channel or carrier))	US-PGPUB; USPAT	OR	ON	2010/03/02 11:44
S25	0	S20 and S24	US-PGPUB; USPAT	OR	ON	2010/03/02 11:44
S26	75	S10 and S24	US-PGPUB; USPAT	OR	ON	2010/03/02 11:44
S27	0	voice/data with convert\$6 with S20	US-PGPUB; USPAT	OR	ON	2010/03/02 11:45
S28	136	voice/data with convert\$6	US-PGPUB; USPAT	OR	ON	2010/03/02 11:45
S29	0	S28 same S20	US-PGPUB; USPAT	OR	ON	2010/03/02 11:45
S30	13092	(data near2 (speech or voice)) near3 (traffic or channel or carrier)	US-PGPUB; USPAT	OR	ON	2010/03/02 11:58
S31	478	S30 same (Conver \$6 near4 (traffic or channel or carrier))	US-PGPUB; USPAT	OR	ON	2010/03/02 11:59
S32	314	S30 with (Conver \$6 near4 (traffic or channel or carrier))	US-PGPUB; USPAT	OR	ON	2010/03/02 12:03
S33	11	S31 and S20	US-PGPUB; USPAT	OR	ON	2010/03/02 12:03
S34	8	S32 and S20	US-PGPUB; USPAT	OR	ON	2010/03/02 12:09
S35	215	S10 and S32	US-PGPUB; USPAT	OR	ON	2010/03/02 12:09

S36	5	S8 and S31	US-PGPUB; USPAT	OR	ON	2010/03/02 12:09
S37	47	S31 same (threshold or limit \$4 or load\$4)	US-PGPUB; USPAT	OR	ON	2010/03/02 12:16
S38	8197	(threshold or limit \$4 or load\$4) same (Conver\$6 near4 (traffic or channel or carrier))	US-PGPUB; USPAT	OR	ON	2010/03/02 12:26
S39	238	S30 and S38	US-PGPUB; USPAT	OR	ON	2010/03/02 12:26
S40	191	S38 same (voice or speech) same data	US-PGPUB; USPAT	OR	ON	2010/03/02 12:27
S41	74	S30 and S40	US-PGPUB; USPAT	OR	ON	2010/03/02 12:27
S42	27	S41 not S37	US-PGPUB; USPAT	OR	ON	2010/03/02 12:27
S43	3536	((data near2 (speech or voice)) near3 (traffic or channel or carrier)) near4 (carry\$4 or support \$4 or transmit\$4)	US-PGPUB; USPAT	OR	ON	2010/03/02 12:51
S44	11	S38 same S43	US-PGPUB; USPAT	OR	ON	2010/03/02 12:55
S45	11	S31 and S44	US-PGPUB; USPAT	OR	ON	2010/03/02 12:56
S46	82	S31 same S43	US-PGPUB; USPAT	OR	ON	2010/03/02 12:56
S47	0	S20 and S46	US-PGPUB; USPAT	OR	ON	2010/03/02 12:56
S48	68	S46 and S10	US-PGPUB; USPAT	OR	ON	2010/03/02 12:57

S49	14	S46 not S48	US-PGPUB; USPAT	OR	ON	2010/03/02 13:15
S50	160	S31 and S43	US-PGPUB; USPAT	OR	ON	2010/03/02 13:17
S51	16	S38 and S50	US-PGPUB; USPAT	OR	ON	2010/03/02 13:20
S52	130	S10 and S50	US-PGPUB; USPAT	OR	ON	2010/03/02 13:21
S53	78	S50 not S46	US-PGPUB; USPAT	OR	ON	2010/03/02 13:21
S54	62	S10 and S53	US-PGPUB; USPAT	OR	ON	2010/03/02 13:21
S55	12437	voice/ data or ((voice or speech) near2 data near2 both)	US-PGPUB; USPAT	OR	ON	2010/03/02 13:34
S56	123	S55 same S20	US-PGPUB; USPAT	OR	ON	2010/03/02 13:34
S57	39	(S56 same (traffic or channel or carrier))	US-PGPUB; USPAT	OR	ON	2010/03/02 13:34
S58	117913	(convert\$4 or reassign\$6 or reallocat\$4) with (traffic or channel or carrier)	US-PGPUB; USPAT	OR	ON	2010/03/02 13:36
S59	10	S57 and S58	US-PGPUB; USPAT	OR	ON	2010/03/02 13:37
S60	1	("5214789").PN.	US-PGPUB; USPAT	OR	OFF	2010/03/02 17:49
S61	1	("5790534").PN.	US-PGPUB; USPAT	OR	OFF	2010/03/16 14:39
S62	0	S61 and conver\$8	US-PGPUB; USPAT	OR	ON	2010/03/16 15:00

S63	8	("4670899"   "4870408"   "5241685"   "5796722"   "6278701"   "6456850"   "6456850"   "6574474"   "6594495").PN.	US- PGPUB; USPAT	OR	ON	2010/03/16 15:02
S64	4	S63 and (circuit or packet)	US- PGPUB; USPAT	OR	ON	2010/03/16 15:02
S65	1	S61 and voice	US- PGPUB; USPAT	OR	ON	2010/03/16 15:03
S66	1	S61 and voice and data	US- PGPUB; USPAT	OR	ON	2010/03/16 15:03

3/ 17/ 2010 4:06:49 PM

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wsp

## **EXHIBIT “D**



**EAST Search History****EAST Search History (I nterference)**

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	0	(((((convert\$4 or reassign\$6 or reallocat\$4) near2 (traffic or channel or carrier)) with (voice adj2 only)) and (data with voice) and (threshold or limit) and (quality or QOS)).clm.	US-PGPUB; UPAD	OR	ON	2010/03/19 09:50

**3/19/2010 9:51:27 AM****C:\ Documents and Settings\jholliday\ My Documents\ EAST\ Workspaces  
 \ 10673480.w sp**

## **EXHIBIT “E**



# UNITED STATES PATENT AND TRADEMARK OFFICE

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www.uspto.gov

## NOTICE OF ALLOWANCE AND FEE(S) DUE

26123 7590 03/24/2010

BORDEN LADNER GERVAIS LLP  
Anne Kinsman  
WORLD EXCHANGE PLAZA  
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EXAMINER

HOLLIDAY, JAIME MICHELE

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 03/24/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,480	09/30/2003	Mo-Han Fong	0583P57US01	1538

TITLE OF INVENTION: MULTI-CARRIER LOAD BALANCING SCHEME FOR VOICE AND DATA

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	06/24/2010

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

**THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.**

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.
- B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE  
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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

26123 7590 03/24/2010

**BORDEN LADNER GERVAIS LLP**  
Anne Kinsman  
WORLD EXCHANGE PLAZA  
100 QUEEN STREET SUITE 1100  
OTTAWA, ON K1P 1J9  
CANADA

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/673,480 09/30/2003 Mo-Han Fong 0583P57US01 1538

TITLE OF INVENTION: MULTI-CARRIER LOAD BALANCING SCHEME FOR VOICE AND DATA

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$0	\$0	\$1510	06/24/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
HOLLIDAY, JAIME MICHELE	2617	455-453000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).  
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev. 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list  
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,  
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.  
1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_

## 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

## 4a. The following fee(s) are submitted:

- ☐ Issue Fee  
☐ Publication Fee (No small entity discount permitted)  
☐ Advance Order - # of Copies \_\_\_\_\_

## 4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.  
☐ Payment by credit card. Form PTO-2038 is attached.  
☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

## 5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_ Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,480	09/30/2003	Mo-Han Fong	0583P57US01	1538

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EXAMINER

HOLLIDAY, JAIME MICHELE

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 03/24/2010

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1511 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1511 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

**Notice of Allowability**

Application No.

10/673,480

Applicant(s)

FONG ET AL.

Examiner

JAIME M. HOLLIDAY

Art Unit

2617

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to BPAI decision dated November 27, 2009.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

***Response to Arguments***

1. Applicant's arguments, see Appeal Brief, filed August 30, 2007, with respect to claims 1-20 have been fully considered and are persuasive. The U.S.C. 102 (b) rejection of claims 1, 3, 4 and 10, and the U.S.C. 103 (a) rejection of claims 2, 5-9, 11 and 15-18 have been withdrawn.

***Allowable Subject Matter***

2. **Claims 1-20** are allowed, and are renumbered **claims 1-3, 6-11, 14, 15, 18-20, 4, 5, 12, 13, 16 and 17**, respectively.

3. The following is an examiner's statement of reasons for allowance:

Consider **claims 1, 4, 10 and 12**, the most relevant prior art of record, Zdunek et al. (4,870,408) in view of Watanabe et al. (6,122,292), fails to first convert voice and data carriers into voice only carriers based on a threshold.

Zdunek et al. clearly show and disclose a method to dynamically allocate a number of data channels on a trunked radio (voice/data) system **100** and to redistribute or balance data traffic load on the particular number of data channels currently available (column 2 lines 20-25, column 3 lines 11-12). The data activity is monitored during a predetermined interval and if the data activity is above a predetermined maximum, (establishing a maximum load value for at least one of a voice or data traffic on a carrier; establishing a nominal value for acceptable quality of communications) (column

2 lines 20-25 and 32-36). If data traffic is low, a data channel is reallocated for voice message only providing superior access time and system performance (maintaining loading on said carrier at a level no greater than said established maximum load value by converting said carrier to voice-only traffic) (column 2 lines 37-44). The network comprises at least one host computer **106**, which is coupled to a network controller **108** that monitors the activity on the data channels, and communicates with a central controller **102** that monitors the voice activity (column 3 lines 34-38, column 5 lines 27-29). If the central controller determines that voice activity has exceeded a predetermined threshold, the central controller requests the network controller to relinquish a data channel (converting said carrier to voice only traffic upon exceeding said established maximum load value, wherein said established maximum load value is a threshold defined to ensure acceptable quality of communications) (column 5 lines 38-41).

Watanabe et al. clearly show and disclose in the on-demand band, the trunks and the channels are divided into those for voice and those for data, and in the fixed allocation band, the trunks are likewise divided into those for voice and those for data (voice and data traffic). Observing traffic in each band in a predetermined interval, and based on the traffic from time to time, changing the ratio of the division for voice and for data regions. Widening the band for voice communication during the daytime when the amount of telephone use is heavy, and widening the band for data communication during the nighttime when the amount of telephone use is small (converting said carrier to voice only traffic upon exceeding said established maximum load value, wherein said



established maximum load value is a threshold defined to ensure acceptable quality of communications) (column 2 line 58- column 3 line 2).

Zdunek et al. in view of Watanabe et al., lack the explicit claimed limitation of “converting said carrier from voice and data traffic to voice-only traffic,” therefore this limitation, in further in view of the BPAI decision of 11/27/09 , is considered novel and unobvious in view of the combination of Zdunek et al and Watanabe et al.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAIME M. HOLLIDAY whose telephone number is (571)272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on (571) 272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jaime M Holliday/  
Examiner, Art Unit 2617

/Charles N. Appiah/  
Supervisory Patent Examiner, Art Unit 2617

**THIS IS EXHIBIT "F"**

<b>Notice of References Cited</b>	Application/Control No. 10/673,480		Applicant(s)/Patent Under Reexamination FONG ET AL.	
	Examiner JAIME M. HOLLIDAY		Art Unit 2617	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,122,292 A	09-2000	Watanabe et al.	370/468
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

**THIS IS EXHIBIT "G"**



1 of 7 DOCUMENTS

**IN THE MATTER OF THE APPLICATION OF RAYMOND O. VOSS**

**Patent Appeal No. 76-710.**

**UNITED STATES COURT OF CUSTOMS AND PATENT APPEALS**

**557 F.2d 812; 1977 CCPA LEXIS 136; 194 U.S.P.Q. (BNA) 267**

**June 23, 1977, Decided**

**PRIOR HISTORY:** **[\*\*1]** Serial No. 784,635.

**COUNSEL:** Clinton S. Janes, Jr., Corning, N.Y., attorney of record, for appellant.

Joseph F. Nakamura, Washington, D.C., for the Commissioner of Patents, Fred E. McKelvey, Jere W. Sears, Washington, D.C., of counsel.

**OPINION BY: MILLER**

**OPINION**

**[\*814]** MILLER, Judge.

This appeal is from the decision of the Patent and Trademark Office ("PTO") Board of Appeals ("board"), adhered to on reconsideration, sustaining the examiner's rejection of claims 3, 4, 5, 7, and 8 under 35 USC 102(b), in application serial No. 784,635, filed December 18, 1968, for "Glass-Ceramic Article and Method." <sup>1</sup> We reverse.

<sup>1</sup> This application is a continuation-in-part of application serial No. 365,117, filed May 4, 1964, and now abandoned.

**The Invention**

Glass-ceramic articles are produced through controlled heat treatment and crystallization of glass articles which contain nucleating agents. Appellant's

invention starts with such a glass-ceramic article, containing a beta-spodumene <sup>2</sup> as the predominant crystal **[\*\*2]** phase, and then strengthens it through an ion-exchange process. The glass-ceramic article is immersed in a molten sodium salt bath for a time and at a temperature sufficient to permit the relatively large sodium cations to exchange with relatively smaller lithium cations, thereby effecting compressive stresses in the surface layer of the article and achieving an increase in the strength of the article.

<sup>2</sup> Beta-spodumene is a crystal in the trapezohedral class of the tetragonal system having the formula  $\text{Li}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 4\text{SiO}_2$ . It is formed by heating alphaspodumene on the order of 700 degree C.

Claims 4 and 7 are representative of the claimed subject matter and are reproduced below.

4. A unitary glass-ceramic article of high strenght [sic] wherein the crystal content thereof constitutes at least 50% by weight of the article with a surface compressive stress layer and an interior portion consisting essentially of  $\text{Li}_2\text{O}$ ,  $\text{Al}_2\text{O}_3$ , and  $\text{SiO}_2$ , wherein the crystals of said interior portion consist essentially of beta-spodumene **[\*\*3]** solid solution and the crystals of said surface compressive stress layer consist essentially of beta-spodumene solid solution, the crystal structure of said latter crystals being essentially unchanged but in at least a portion of which the proportion of lithium ions is less with a corresponding increase in an amount of

sodium ions. [\*815] 7. A method for making a unitary glass-ceramic article of high strenght [sic] wherein the crystal content thereof constitutes at least 50% by weight of the article with a surface compressive stress layer and an interior portion which comprises contacting a glass-ceramic article consisting essentially of Li<sub>2</sub>O, Al<sub>2</sub>O<sub>3</sub>, and SiO<sub>2</sub>, wherein the crystal phase therein consists essentially of beta-spodumene solid solution, at a temperature above 200 degree C. with a source of exchangeable sodium ions for a period of time sufficient to replace at least part of the lithium ions of said

beta-spodumene solid solution in a surface layer of the article with a corresponding amount of sodium ions, said replacement not changing the essential crystal structure of the beta-spodumene solid solution crystals but thereby effecting a compressively stressed surface [\*\*4] layer on the article. [Underscored matter represents the limitation in issue.]

The Prior Art

The reference relied upon by the board was:

Corning Glass Works	1,439,341	April 12, 1966 <sup>3</sup>
("French patent")		(delivery date)

3 The record does not disclose the specific date of publication, although the face of the patent indicates publication during 1966. The examiner erred in using the "delivery" date as the "patent" date for section 102(b) purposes. In re Ekenstam, 45 CCPA 1022, 256 F.2d 321, 118 USPQ 349 (1958). See Manual of Patent Examining Procedure § 901.05(b), at 140 (April, 1976). The error was harmless, however, since the patent was available to the public more than one year prior to appellant's actual filing date.

The French patent appears to be based on a number of United States applications commonly assigned to Corning Glass Works. Among them is serial No. 365,117, of which the present application is a continuation-in-part.

#### The Rejection

This application was [\*\*5] previously before this court in appeal No. 74-527. While that appeal was pending, the Commissioner requested that the application be remanded for the board to reverse the sole ground of its rejection in light of our decision reversing the board on a similar rejection in a commonly-assigned application. <sup>4</sup> The motion for remand was granted, the board reversed the sole ground of rejection, and the application was returned to the examiner. The examiner then, pursuant to 37 CFR 1.198, reopened prosecution and applied the French patent against all claims under 35

USC 102(b). The examiner's position was that the limitation in the claims, "wherein the crystal content thereof constitutes at least 50% by weight," was not described in appellant's parent application, as required by the first paragraph of 35 USC 112. Thus, appellant was denied the benefit of the filing date of his parent application under 35 USC 120, rendering the French patent available as a reference under section 102(b). <sup>5</sup>

4 In re Ackerman, No. 9123 (CCPA Jan. 17, 1974) (unpublished opinion), 180 USPQ IV.

5 Appellant has not denied that at least Example 1 of the French patent shows an embodiment of the presently claimed subject matter.

[\*\*6] Before the board, appellant argued that the reopening of prosecution by the examiner was improper <sup>6</sup> and that the passage, quoted below, from his parent application directed the person of ordinary skill in the art to United States patent No. 2,920,971 ("Stookey '971") for a description of glass-ceramic articles which appellant deemed operable in his invention.

6 It does not appear from the record that appellant ever petitioned the Commissioner with respect to the decision to reopen prosecution.

A glass-ceramic material is originally formed as a glass which is then phase separated, by a controlled uniform devitrification throughout, to develop a fine crystalline structure within a glassy matrix, the material thus produced having physical properties materially different from the parent glass and more nearly [\*816]

characteristic of a conventional crystalline ceramic material. Reference is made to United States Patent No. 2,920,971, granted to S.D. Stookey, for a general discussion of glass-ceramic [\*\*7] materials and their production.

The board found that it had no jurisdiction to review the Commissioner's grant of authority for the examiner to reopen prosecution. It further found that the "mere reference" to the Stookey '971 patent in the parent application was "not sufficient to incorporate by reference into the parent application any portions of the Stookey patent," citing *In re de Seversky*, 474 F.2d 671, 177 USPQ 144 (CCPA 1973). Having thus determined that the parent application did not contain an antecedent basis for the disputed limitation in the claims, the board concluded that the present application was not entitled to the benefit of the parent application filing date and affirmed the rejection based on the French patent.

## OPINION

### Propriety of Reopening Prosecution

Appellant renews his contention that the PTO improperly reopened prosecution. We note that appellant, in his Notice and Reasons of Appeal to this court, does not specifically allege that the board erred in failing to find that it had authority to review the Commissioner's action authorizing reopening of prosecution; rather, he alleges that the "Patent and Trademark Office erred in re-opening prosecution," [\*\*8] an allegation sufficient to include the finding of no jurisdiction by the board, from whose decisions appeals lie to this court under 28 USC 1542<sup>7</sup> and 35 USC 141.<sup>8</sup> Accordingly, this court has jurisdiction to determine whether the board properly found that it had no jurisdiction to review the decision to reopen prosecution. *In re Haas*, 486 F.2d 1053, 179 USPQ 623 (CCPA 1973).

<sup>7</sup> 28 USC 1542 in pertinent part reads:

The Court of Customs and Patent Appeals shall have jurisdiction of appeals from decisions of:

(1) the Board of Appeals and the Board of Interference Examiners of the Patent Office as to patent applications and interferences....

<sup>8</sup> 35 USC 141 in pertinent part reads:

An applicant dissatisfied with the decision of the Board of Appeals may appeal to the United States Court of Customs and Patent Appeals....

This court has held that jurisdiction under 35 USC 141 is dependent upon the jurisdiction of the board under 35 USC 7,<sup>9</sup> viewed in light of 35 USC 134.<sup>10</sup> *In re Dollinger*, [\*\*9] 474 F.2d 1027, 177 USPQ 201 (CCPA 1973). The examiner's decision to reopen prosecution constituted neither the rejection of a claim nor a decision adverse to the ultimate patentability of a claim. Accordingly, we hold that the board properly found that it had no jurisdiction to review the decision to reopen prosecution.<sup>11</sup>

<sup>9</sup> 35 USC 7 in pertinent part reads:

The examiners-in-chief shall be persons of competent legal knowledge and scientific ability.... The Commissioner, the deputy commissioner, the assistant commissioners, and the examiners-in-chief shall constitute a Board of Appeals, which, on written appeal of the applicant, shall review adverse decisions of examiners upon applications for patents.

<sup>10</sup> 35 USC 134 in pertinent part reads:

An applicant for a patent, any of whose claims has been twice rejected, may appeal from the decision of the primary examiner to the Board of Appeals....

<sup>11</sup> This court rendered no decision in previous appeal No. 74-527. Even if the decision of the board had been reversed, this court has consistently held that such reversal is not a mandate to the PTO to issue a patent and does not preclude the PTO from reopening prosecution. See, e.g., *In re Borkowski*, 505 F.2d 713, 184 USPQ 29 (CCPA 1974), *In re Arkley*, 59 CCPA 804, 810, 455 F.2d 586, 589, 172 USPQ 524, 527 (1972), and *In re Fisher*, 58 CCPA 1419, 448 F.2d 1406, 171 USPQ 292 (1971).

[\*\*10] The Incorporation-by-Reference Issue

It is apparent that the board misinterpreted this court's decision in *In re de Seversky*, [\*\*817] *supra*, by confusing two different concepts described therein as follows:



(1) the right to have the benefit of the filing date of an earlier application under § 120 for subject matter claimed in a later application because that subject matter is disclosed in an earlier application to which "a specific reference" is made - i.e., a reference to the earlier application per se, and (2) the incorporation by reference in an application of matter elsewhere written down (not necessarily in a patent application), for economy, amplification, or clarity of exposition, by means of an incorporating statement clearly identifying the subject matter which is incorporated and where it is to be found. [474 F.2d at 674, 177 USPQ at 146. Emphasis in original.]

Appellant is not relying on his parent application's reference to Stookey '971 to give him an earlier effective filing date as in (1), but to incorporate a discussion of glass-ceramic articles and methods of preparing them as in (2).<sup>12</sup> Glass-ceramic materials are merely starting materials for appellant's [\*\*11] strengthening process. Rather than include in his application a detailed discussion of how to prepare such known starting materials, appellant, for economy, referred the skilled artisan to Stookey '971. It is clear that appellant intended the "discussion of glass-ceramic materials and their production" in Stookey '971 to become part of his parent application. See *In re Lund*, 54 CCPA 1361, 1370, 376 F.2d 982, 989, 153 USPQ 625, 631 (1967). The board erred in finding otherwise.

12 Compare the incorporating language quoted, supra, in the parent application with the language in *In re Hughes*, F.2d , 193 USPQ 141 (CCPA 1977), where a statement, "Reference is made to application Ser. No. 131, 108 for complete descriptions of methods of preparing aqueous polymeric dispersions applicable in the hereinafter described invention," was held to incorporate the disclosure of such methods into the patent in question.

#### The Description Requirement Issue

Turning to the merits of the rejection, the PTO can [\*\*12] rely on the French patent as a reference against the involved claims only if appellant's parent application does not comply with 35 USC 112, first paragraph with respect to those claims. How the application of the parent achieves compliance is immaterial. In *re Smith*, 481 F.2d 910, 178 USPQ 620 (CCPA 1973). It is only required, for example, that the specification describe the

invention sufficiently for those of ordinary skill in the art to recognize that the applicant invented the subject matter he now claims. In *re Smythe*, 480 F.2d 1376, 1382, 178 USPQ 279, 284 (CCPA 1973). The PTO has the initial burden of presenting evidence or reasons why those skilled in the art would not recognize in the specification a description of the invention defined by the present claims. In *re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

As correctly pointed out by the Solicitor, the expression "at least 50%" crystal content does not literally appear in appellant's parent application. However, mere lack of literal support is not enough to carry the PTO's initial burden. In *re Wertheim*, supra at 265, 191 USPQ at 98. Nor is this a situation where the claims read on embodiments outside the scope [\*\*13] of the description.<sup>13</sup> Appellant's parent application describes the invention in terms broader than those in the claims, for example:

13 See the treatment of claims 1 and 4 in *In re Wertheim*, supra at 263-64, 191 USPQ at 97-98.

I have further found that a glass-ceramic material containing a lithium-aluminum-silicate crystal phase identified as beta-spodumene can be strengthened to a remarkable degree by ion exchange resulting from thermochemical treatment. Strangely enough, however, this strengthening capability is of a selective nature, that is peculiar to, and uniquely associated with, certain crystals or crystal structure. Thus, it has been found that a glass-ceramic containing a metastable beta-eucryptite crystal phase is not strengthened by such ion exchange [\*\*18] whereas the same material after thermal conversion of the crystal phase to the beta-spodumene form is readily strengthened.

The term "beta-spodumene" has been used to designate a crystal that is now known to be in the... tetragonal system....

.... the basic considerations for strengthening of this type of glass-ceramic material appear to be the presence of an exchangeable ion (lithium) in the crystal, a crystal in the tetragonal system, and a fine grain size crystal characteristic of well-developed [\*\*14] glass-ceramic materials.

It is apparent that appellant contemplated that his invention resided in the use of a well-developed

glass-ceramic material having beta-spodumene as the crystal phase to enable strengthening of the material by his ion exchange process. The claims on appeal add only the further recitation that such glass-ceramic materials must have a crystal content of "at least 50% by weight."

Appellant urges that this 50% limitation merely quantifies the percentage crystal content inherent in use of the term "glass-ceramic material." In determining the meaning of that expression, as used in the context of the present application, we must look to the art or technology to which the subject matter pertains. In *re Salem*, F.2d , 193 USPQ 513 (CCPA 1977). In this case, appellant has incorporated the Stookey '971 discussion of "glass-ceramic materials" into his application. He also points to [\*\*15] the fact that, in litigation involving Stookey '971, the District Court for the District of Delaware made findings of fact, subsequently approved by the Third Circuit Court of Appeals, in *Corning Glass Works v. Anchor Hocking Glass Corp.*, 253 F. Supp. 461, 149 USPQ 99 (D. Del. 1966), modified, 374 F.2d 473, 153 USPQ 1 (CA 3 1967), substantially as follows:

(1) the change in properties in a glass ceramic begins at approximately 40% crystallinity and in most cases is complete at 60% crystallinity, (2) the 50% crystallinity limitation found in all claims of the Stookey '971 patent must be read in light of the patent's overall purpose to convert preformed glass articles to predominantly crystalline bodies with substantially crystalline properties, and (3) at the time the Stookey invention was made it was possible to only roughly determine the percent crystallinity of a glass-ceramic material.

Such findings are strongly probative of what one of ordinary skill in the art, at the time appellant's invention was made, would have understood to be the meaning of the term "glass-ceramic material."

The PTO cites another Stookey patent (No. 3,157,522) to show that glass-ceramic materials can [\*\*16] have as low as a 20% crystal content. However, this patent is not available as evidence, because its issue date is after the filing date of appellant's parent application and, further, it does not purport to teach that the information was publicly known as of the filing date of appellant's parent application.<sup>14</sup> See *In re Gunn*, 537 F.2d 1123, 190 USPQ 402 (CCPA 1976); *In re Glass*, 492 F.2d 1228, 181 USPQ 31 (CCPA 1974).<sup>15</sup>

<sup>14</sup> Even if we were to assume that the term

"glass-ceramic material" encompassed materials with a crystal content as low as 20% by weight, description of the range 20-100% (100% being the theoretical upper limit of crystallinity) would necessarily describe the range 50%-100% crystal content now claimed unless the broad range pertained to a different invention from that involving the narrower range. In *re Wertheim*, supra at 264-65, 191 USPQ at 98. The portions of appellant's parent application, quoted supra, indicate no criticality in the percentage crystallinity utilized in the practice of the invention, merely stating that the glass-ceramic material have physical properties "more nearly characteristic of a conventional crystalline ceramic material," citing Stookey '971.

15 [\*\*17] We note the dictum in footnote 6 of *Glass*, id. at 1232, 181 USPQ at 34, indicating that later-issued patents or publications may be used to construe claim language. However, it is clear from the quotation from *In re Fisher*, 57 CCPA 1099, 1106, 427 F.2d 833, 838, 166 USPQ 18, 23 (1970), set forth in the footnote that the PTO can rely on such later-issued patents and publications only if a showing is made that such claim language is the "language of the present art" as of the filing date of the application in question. The PTO has made no such showing in this case.

[\*819] The Solicitor's argument that Stookey '971 describes glass-ceramics having crystal contents as low as 25% is not persuasive in view of the claims and "overall purpose" of Stookey '971. *Corning Glass Works v. Anchor Hocking Glass Corp.*, supra.

On this record, we conclude that the "at least 50%" limitation in appellant's claims merely quantifies the percentage crystallinity one of ordinary skill in the art at that time would have attributed to the term "glass-ceramic material."

The Solicitor's other arguments appear [\*\*18] to question whether Stookey '971 shows examples of glass-ceramic materials suitable for use in appellant's invention. However, appellant need not rely on Stookey '971 for such examples. His parent application, in Examples I, III, and IV, shows strengthened glass-ceramic materials having at least 50% by weight crystalline beta-sponumene content.<sup>16</sup> Also, we note that the PTO has not questioned that the present

557 F.2d 812, \*819; 1977 CCPA LEXIS 136, \*\*18;  
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application complies with the requirements of 35 USC 112, first paragraph.

USPQ 49 (1956).

16 Compare identical Examples I, III, and IV in the present application in which X-ray diffraction analysis was performed and percentages determined. The examples in the parent application, of course, would have inherently possessed the same properties. See *Crome v. Morrogh*, 44 CCPA 704, 239 F.2d 390, 112

In view of all the foregoing, we hold that appellant's parent application complies with the requirements of 35 USC 112, first paragraph and that appellant is entitled to his filing date under 35 USC 120.

[\*\*19] The decision of the board is reversed.

REVERSED